



Issued: January 18, 2017

Receipt acknowledged by

Planholders;

- Minor changes made to the irrigation plan with a revision date of 1/16/17 will now be used. This plan shows 2" lines crossing fairway lateral feeds instead of 3". The new plan shows new plumbing feeds for the ball fields. The plan will be available on the City's website as well as directly contacting the Designer. This plan replaces the original irrigation plan and should be used for the bid.
- Noted in the pre-bid meeting that prevailing wage rates fall under the Building Construction rates vs. the Heavy Construction rates.

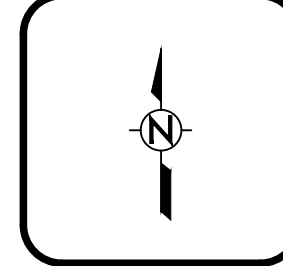
Hydraulic Notes:

- All quantities listed are CAD quantities. The Contractor should adjust material estimates accordingly.
- 900/950E Sprinklers shall be spaced at 80'.
- 700/751E Sprinklers shall be spaced at 65'.
- 351B Sprinklers shall be spaced at 48'.
- Sprinklers and quick coupling valves shall be installed on a swing joint with no more than a 30-45 degree angle of the lay arm.
- Sprinklers and QCV shall be set level and flush to grade.
- HDPE Acme service feeds for sprinklers shall be 1.5" Acme outlet using either Lasco or Dura service feeds. Note: a top feed swing joint will be require with a Lasco or Dura saddle.
- All HDPE pipe shall be 4710 DR13.5 minimum.
- All PVC mains (alternate) shall be CL200 Gasket Joint.
- Main line gate valves shall be Nilco. Valves shall be installed in a 10" round valve box.
- Lateral isolation valves shall be Harco swivel type and be installed in a 10" round valve box.
- Air release valves shall be Bermad model #31A 1" and shall have 1" isolation valves and be installed in a standard valve box with the appropriate number of extensions. Air release valves shall be located at the highest points on the mainline regardless of where shown on the drawings.
- Manual drain valves shall be Nilco bronze threaded model T113K-020 and be installed in a 10" round valve box.
- Quick couplers shall be installed using a Harco stabilizer and be in a 6" round valve box.
- Use manufacturer's recommendations for all materials installation.
- Sod cut and trench main line piping when in fairways.
- Vibratory play all lateral lines where possible.

Electrical Notes:

- Note all quantities listed are CAD quantities. The Contractor should adjust quantities accordingly.
- At no point in the system shall the wire be tight.
- All splices shall be done with a King Industries splice tool. Great care should be taken not to cut into the inner sheath of the Max wire. Strip only enough main wire to make the splice for easy service.
- All splices shall be made using either a Rain Bird DBR1 or King Industries DBR1 waterproof connector and shall be twisted before installation in wire nut.
- All splices shall have a minimum of 2" excess wire above grade. Splices not at sprinklers shall be in a valve box and clearly marked on the as-built plan.
- All splices in valve boxes shall be clearly labelled with markers indicating incoming and direction of each outgoing wire.
- Bury splices underneath selector valve and wrap with a small amount of electrical tape. Avoid duct tape and excess wrapping of tape.
- All surge protectors shall be placed in a valve box and grounded to 50 ohms or less. It is the Contractor's responsibility to add additional grounding if this specification cannot be made.
- The central ground grid shall be grounded to 10 Ohms or less and correct number of MGP-1 and MGP-1 shall be used.

LEGEND		
1		Rain Bird Stratus II Central Control System
1		Rain Bird Freedom Radio System
76		Rain Bird A700IC7040 FC Sprinkler 65' Spacing
344		Rain Bird A900IC7060 FC Sprinkler 80' Spacing
80		Rain Bird A351B48 Sprinkler 48' Spacing
19		Rain Bird SRC Quick Couplers
16		Rain Bird 200 EFB-CPIC Electric Valves
73		Rain Bird ICSD Surge Protection and Grounding
13		Nilco Flanged Isolation Valves
33		Harco Swivel Lateral Isolation Valves w/ SS Grip Rings
5		Bermad A31 1" Air Relief Valves
5		Z" Drain Valves
280		Pipe 8" HDPE 4710 DR13.5 or CL200 PVC (alt.)
6080		Pipe 10" HDPE 4710 DR13.5 or CL200 PVC (alt.)
6840		Pipe 12" HDPE 4710 DR13.5 or CL200 PVC (alt.)
3800		Pipe 3" HDPE 4710 DR 13.5
40100		Pipe 2" HDPE 4710 DR13.5
51500		Maxi #1/2"



TWIN LAKES SPORTS COMPLEX
NEVADA, MO
IRRIGATION PLANS
COMPLETE

TurfVerks
PARTNERS IN GROWTH
505 N. BOWLING DRIVE
SPRINGDALE, AR 72762

RAIN BIRD
The World's Leader in Irrigation

FE2107
BNF
1/10/17
1/10/17
1"=100'
1